NEW-ENGLAND FARMER.

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NEW ENGLAND FARMER.

DISCOVERING DEFICIENCIES IN SOILS.

Mr Editor—Our scientific friends who (to their credit be it said,) lecture and write for the laudable purpose of instructing the farmer in the philosophy of his art, and to show him the conditions upon which depends his best success in the pursuit of his business, frequently dwell upon and explain the importance of his knowing in what properties his soil is deficient, so that he can supply them, and thus increase his crops. Now, in reference to this desideratum, I ask—*How can we do it?*

Farmers—*real working* farmers—such as compose the great mass of our yeomanry—cannot be supposed to be analytical chemists: they have neither the knowledge nor the means requisite to *analyze* their soils, nor the pecuniary ability to pay the professed chemist for doing it.

To ascertain, as we are told we should, whether our soils are deficient in lime, gypsum, soda, potash, &c., seems to me no easy matter for one who is not versed in chemistry,—and I ask, again, *How can we do it?*

The *importance* of the thing I fully appreciate, and would fain accomplish it, if I knew any simple way of doing it: but I cannot, for the best of reasons, set myself down to attain the knowledge requisite to enable me to analyze soils according to the principles of chemistry.

True, we need to learn—it is much for our *interest* to learn—what deficiencies exist in our soils, which common manure cannot supply,—but, *How can we do it?*

Very respectfully, yours,

PELEG PLOUGHSHARE.

Smithville, March 18, 1845.

☞It is very true, as "Peleg" says, that it is not in the power of farmers generally to analyze their soils for the important purpose of detecting and supplying deficiencies; and perhaps no better course could be recommended for such to pursue to attain this end, than to make experiments on a small scale with such substances as our correspondent mentions, and if any beneficial effect results from the use of any particular substance, as gypsum, ashes, or bones, then, on the same kind of soil, an extensive use of that substance may be made.

The mixing of different kinds of soil, in the compost heap or directly on the field desired to be improved, is one of the surest and cheapest ways of amending a particular soil.

To ascertain whether a soil is deficient in lime, Dr. G. B. Smith, of Maryland, gives the following directions:—"Take a handful here and there from the whole field, say twenty handsful in all; mix well together, then take a handful from the whole mixture, put it upon a shovel, and heat it red hot; then take it from the fire and let it cool; when cold, pulverize it to a fine powder, and pour upon it good cider vinegar; (diluted muriatic acid is best, but vinegar, if good, will do.) If it foams considerably, you want no lime in the soil: if it do not foam, then lime is wanted."

To learn what deficiencies probably exist in a long cultivated soil, it is important to know *the constituents of the crops which have been taken from it*—then the particular matters which have been extracted, may be returned in some form or other, as in bones, silica, ashes, gypsum. Much valuable information has been given on this subject in original and selected articles which have appeared in our pages within a few years past, and our correspondent will find some useful hints upon it in Dr. Jackson's remarks commenced in our last number and continued in this.

For more satisfactory and valuable information on the subject of his inquiries than is here given, we refer our correspondent to Prof. Johnston's instructive Lectures on Agricultural Chemistry—a work which every farmer in "Smithville" and elsewhere, should own, who can read and reason.

For the New England Farmer.

PLOWING.

Mr Breck—There is a difference of opinion among farmers in respect to the best time of plowing or breaking up sward land, for the purpose of raising a crop of corn or potatoes. Some prefer plowing in August, or first of September; others, just before the ground freezes, late in autumn; others would have all their greensward for planting, turned over in the spring; while some seem to have but little calculation or system about it, especially as they cross-plow before planting.

The three first named times of plowing all have their advantages, and I will attempt to point out some of the advantages I consider attached to each method.

If land is plowed in August, or early in September, the days are longer, and more work can be done with a "breaking up team"—and as there is generally a good bite of feed, the team can be baited in the field at noon, much cheaper than upon hay. The furrows should be turned over as flat as possible, and in a day or two, they should be pressed down with a heavy roller, and harrowed lengthwise, so as not to disturb the sod; every "crack or crevice" between the furrow-slices should be filled, to prevent the grass from starting up, and as much as possible to prevent the escape of the *gases*—for the stubble and green vegetable matter turned in at that season of the year, from the warmth of the ground, will speedily ferment, and a large amount of gases will be generated, and if the ground has been well plowed, rolled, &c., there will be but little chance for the gases to escape, but they will be absorbed by the soil, and the ammonia will combine with the *humus* of the decaying turf and be retained for the use of the succeeding crop; the particles of mica and felspar affording potash and soda, will, by the action of the frost and the carbonic acid of the air, be decomposing through the winter, and thereby be rendered soluble, and aid much in yielding those inorganic matters so necessary to our cultivated crops.

In the following spring, the manure (which for putting upon the inverted sward, should always be good fine composted manure,) can be worked in with the cultivator, (twice going over will be better than six times with the harrow,) without disturbing the sod, and the planting and after cultivation will be as easy as upon old ground.

There are some cases, perhaps, where it might not be advisable to plow so long before planting, such as where the field lies upon a steep hill-side, and would be liable to wash by heavy rains—or where from its bleak and exposed situation, much of the finer and most valuable part of the soil would blow off by heavy winds—or where a farmer is satisfied to use a miserable plow, and content with the *cut and cover* system, or half plowing his land, the grass in such a case, would spring up, and make the planting and hoeing an "up hill" piece of business; and such farmers ought to *break up* their ground as short a time as possible before planting.

The second method, or late plowing, perhaps, would be best for a stiff, clayey soil, as the alternate freezing and thawing would tend to render the soil more light and friable, than if plowed in the spring. And it might also have an effect, by exposure, and the action of the frost, to destroy grubs and other worms and insects in their chrysalis or transition state, as they would not have time to provide new winter quarters, after being disturbed so late in the season.

Spring plowing is strongly recommended by many of our best and most intelligent farmers. Where a farmer has not a sufficient supply of fine or compost manure for the ground he intends to plant, and is under the necessity of using his long or unfermented manure, it should be spread upon the sward and plowed under, and a quantity of fine manure spread upon the inverted sward, and harrowed in, or a quantity of fine rich manure put in the hill, to give the corn an early start. The green manure and vegetable matter of the turf, will soon ferment, and a considerable degree of bottom heat ensue, which will be very favorable to the crops. The decomposition of the sward in July or August, will be much more perfect upon the spring plowed, than upon land that was plowed late in autumn; and perhaps, generally, the crops would be better on most soils treated as above described; but the hurry of spring work generally, and occasional wet and backward springs, and scarcity of hay, that sometimes occur, are very serious objections, in my mind, to putting off till spring, what might as well, or better, have been done the previous autumn.

I knew a farmer several years ago, who was much in favor of spring plowing his sward land. He was also in the habit of working with his team, for the blacksmith and some other mechanics, a few days each spring. His price was 75 cents per day, each, for himself and oxen. He kept, one winter, more stock than he had hay for, and was obliged to purchase in the spring. He bought a load of good hay, and put it by purposely for his oxen: he also gave a peck each per day of cob-meal,—(corn was then worth one dollar per bushel.) After having fed out the load of hay, and the corn given his oxen, he ascertained that it had cost him just *seventyfive cents per day* for keeping his ox en—just what he charged for their work. Now,

if he had begun to work his oxen Monday morning, for these mechanics, and worked them every day till Saturday night, the pay for his ox-work would just have paid for their keeping, and the manure they made while in the hovel at night, during the time, was actually all he got for the labor of his oxen. This was buying manure at a dearer rate than *guano* was sold for last spring. Had this farmer's plowing been done in the fall, the keep of his oxen would have comparatively been nothing, and he might have turned them off to pasture several days sooner, and saved his 75 cents per diem.

Of the *advantages* to be derived from cross-plowing sward land, I am perhaps incapable of telling what they are, never having practiced it. If there are any good reasons for such a practice, I have yet to learn what they are. However, I can conceive of several objections to such a course. I should think it an objection, after the sward had been turned down, and the subsoil brought to the surface, to be again reversed and placed in nearly the same position they were before the first plowing: then, by the harrow, the vegetable matter is riddled out from the soil, and left upon the surface, exposed to the drying and wasting action of the winds, and is of no possible use to the crops, so long as it remains dry and upon the surface of the field; and as it slowly and eventually wastes away, it is mostly converted into carbonic acid, which flies off into the air and is nearly useless; but if the sward had been left where it was placed by the first plowing, it would have kept moist, and such a state of decomposition would have been brought on as to have converted the vegetable matter in the soil into a greater number of its proximate and ultimate principles, which form new combinations with themselves, and the inorganic or mineral matters of the soil, and would thus yield a vastly greater amount of food to the growing crops—and a year's action of atmospherical influences upon the inverted soil, has a very good and beneficial influence upon it.

I had intended to have said something upon the depth of plowing; but the length of this reminds me that I had better "unhitch and turn out my team." L. B.

Valuable and Simple Medicine.—When food is taken that causes oppression, the best remedy is hot water in which the rind of old cheese has been grated, to be drank freely. This simple remedy ought to be in the possession of every family, as it will generally afford speedy relief. Some fifty years since, a young lady died in this town, from the effects of eating fruit. A post mortem examination was had, and some experiments were made: nothing was found to have so good an operation upon the contents of the stomach, as the grated cheese-rind. Soon after, another lady was placed in a similar dangerous situation, from the same cause. Her medical attendant prescribed the above remedy, and immediate relief was obtained. The medicine became popular with the past generation, and a lady of that age wishes us to publish it to this and succeeding generations.—*Portsmouth Jour.*

Domestic Yeast.—The following is from the London Gardeners' Chronicle: "Boil one pound of good flour, quarter of a pound of brown sugar, and a little salt, in two gallons of water, for an hour. When milk warm, bottle it and cork it closely, and it will be fit for use in twentyfour hours. One pound of this yeast will make 18 lbs of bread"

This recipe is, to us, of a *very* suspicious character.—*N. E. Far.*

HON. MORRILL ALLEN'S REMARKS

At the Discussion at the State House on Compost Manure.

Were I a scientific man—to which character very little pretence is made—it would not be deemed most useful here, to confine attention to philosophical principles. In saying this, it is not intended to give any intimation that such principles are of minor importance as the foundation of the farmer's practice, or to diminish aught of the obligations we are under to geologists and chemists, who occasionally, with great kindness, point out to us the course which science approves in building the compost heap. In this generation, it is certain that all of us farmers cannot become theoretic philosophers. We can catch something from the lights of science, as we proceed, but must depend very much on practical hints for the correction of past errors, and improvements in our future course. Hence, interchanges in views, and the details of personal practices, may be among the most effective means of inciting inquiry and promoting improvement in meetings which are not continued long enough in one season to admit of much systematic instruction.

Nothing more will now be attempted by me than a plain narration of the course pursued in composting manure. My errors, which have been many, shall not be concealed, and what are now regarded by me as improvements, shall be fairly stated. Perhaps the experience of some other farmer may prove them more imaginary than real.

My lot was cast on a small piece of land which had long been under the management of a mechanic, and, as seemed to me, chiefly under his neglect. On the hedges with which it was surrounded, and on the sides of the highway, almost every substance nutritive to plants had been suffered for ages to accumulate. The first object was to make these materials available and effective—for which purpose the hedges were dug and piled up. The same operations were performed on the sides of the road; but this hard work, which seemed to me deserving of some commendation, was found to be an enterprize of great hazard. The facts are mentioned to show how great has been the change in the views of men within a period of forty years. Immediately on the commencement of the work of digging hedges and piling the soil, a clamor was raised against such processes. First it was said such labor must be useless; then doubts were expressed of the solvency of the operator; then complaint was made that so much soil was taken from the highway, and some angry threats of prosecution were made. On discovering that no law of the Commonwealth had been transgressed, a new mode of attack was resorted to, and it was loudly proclaimed that a minister of religion could not have any very serious concern for the welfare of souls, who made such *ripping* work with soils. This attack might have proved fatal, feeble as I was in ability, and very imperfectly educated for my profession; but, fortunately for me, a good number of my parishioners had discovered that some bread was absolutely necessary to keep soul and body together, during the allotted term of our pilgrimage on earth. This happy discovery saved my professional character from demolition.

Ridicule and contempt are often the last resort of opposition. My name, I suppose in *scorn*, was attached to heaps of earth on the wayside, and attention was often called to them in the phrase, "There are more *Allenites*." If this was meant in reproach, it certainly never was felt as such: on the contrary, it was esteemed one of the highest honors conferred on me. I have since had the pleasure of seeing those piles rising in every town in the county of Plymouth, and feel much more highly honored in having my humble name attached to one of those heaps of rich earth, than I could in its attachment to any extent of newly acquired and uncultivated territory.

When the temper of censure had to some extent been worked down, the materials for enriching my fields, which at first appeared in great quantities, had nearly been worked up;—new means and methods of composting manure became necessary. Among the first adopted, was the carting of a large quantity of loam and forming a heap on the back side of my house. From the sink spout to this heap, a trough was carried to convey the soapsuds, pot liquor, and whatever else containing salts was cast into the sink. The heap was shoveled over two or three times in the season, after which it was found a very efficacious manure. This course I have discovered no occasion to change. Eight or ten loads are made in this manner every year.

The barn-yard was yearly replenished with such materials as could be obtained, and as were supposed best adapted to the fields on which the compost was to be applied. Formerly it was my practice to plow and harrow the yard five or six times in a season: this practice for many years has been discontinued, under a conviction that in the barn-yard where there is much of the ordure of animals, stirring causes the escape of more salts into the atmosphere, than will be imbibed from it. This is not true of every compost heap.

My present course is, to cart loam into the yard in the fall, keep the stock in the yard through the winter, and in the spring cart on another quantity of loam, covering completely all the droppings of the cattle and all the refuse hay collected during the winter. In this state it is suffered to remain till about three weeks before the time of using it, when it is plowed and harrowed, and the whole mass will be sufficiently pulverized for use. This summer compost of the yard is invariably used for mowing grounds in the fall. Heaping in the fields for use the next spring, has for many years been omitted as wasteful. The hog-sty cannot be managed in precisely the same manner as the barn-yard: something of rougher materials may be placed in it: the ceaseless rooting of the swine will dissolve them.

What of compost can be manufactured at the house, barn and hog-sty, will be less than should be applied to the farm. Beyond resources already mentioned, most farmers can do something. On almost every farm there are swamps rich in vegetable matters, and requiring only the action of frost and the atmosphere to reduce them to a state to nourish plants. On some farms, there are extensive beds of peat, which many suppose not convertible into valuable manure without an expensive outlay for lime, ashes, or some alkaline substance. This, in my experience, is not strictly true. Very good effects have been produced by peat mud dug in the fall, spread on the land, and plowed in the next spring. But a better course is to dig it in the summer, place it in piles, let it lie two or three years, shovelling it over occasionally. Time, and the action of the atmosphere will dissipate the acidity and tannin quality: we suppose, also, that in moving such a heap, some gases nourishing to plants are drawn from the atmosphere. Where

circumstances justify immediate expense, it may not be wise for farmers to employ several years in making compost of peat mud, but if no money can be spared in the case, let there be a system of annual operation, and presently we shall have a good supply of ripe manure for our land every year.

Loam, sand, clay, and peat, are the principal ingredients in the compost heap. With these earthy substances, should be mixed every vegetable material and animal substance that can be collected. The earth is a great treasury for the sustenance of animal and vegetable life. She will freely make disbursements suited to our wants, if we make our applications to the proper departments in her office.

For the New England Farmer.

CRANBERRY CULTURE.

Mr Breck—Dear Sir—Perhaps your correspondent who inquires respecting the culture of cranberries, may find some hint that will be of service to him, by referring to articles on the subject, that have appeared in past numbers of the Farmer. See vol. ix. p. 137, Capt. Hall's mode of cultivating. p. 138, statement of Mr Hayden, of Lincoln: p. 251, remarks on by Genesee Farmer: vol. x. p. 405, Capt. Hall on cultivation: vol. xx. p. 323, Mr Bates' mode of cultivation—raises from 200 to 300 bushels per acre: vol. xxi. p. 245, Capt. Hall and Mr Kenrick, kind of land and mode of cultivating.

Sir Joseph Banks obtained this plant from America, and raised at the rate of 460 bushels to the acre.

Cranberries are easily cultivated on any low, moist soil, not too wet: if it could be irrigated it would be better, and if it could be flooded till the 20th of May or 1st of June, it would save the blossoms from frost. Where mill ponds have been kept up till late, cranberries always do well.

Take sods of cranberry meadow, 6 or 8 inches square, dig out deep corresponding holes, a little deeper than the sod taken out, and put in its place, and well pressed in and down, from one to two feet apart, looking like a checker-board,—give a good dressing of beach or dry deep subsoil sand, and a little compost on it, and you will have 300 bushels to the acre, and the cultivated berry will be double the size of the uncultivated berry. By well sanding and manuring, and keeping off the frost by flowing, we can beat Sir Joseph Banks.

My brother-in-law, Abijah Lucas, of Carver, had the most beautiful cranberries in 1841 and '42; but the June frosts of 1843 and '44, killed the buds and blooms so that where, in the previous years, he had 200 bushels, he had not more than 2.

Mr Lucas has cranberries in rather dry bog meadow, and on low tillage land. Sand and water (the more muddy and dirty the better,) is his best dressing. The size and quantity of the cultivated much exceed the wild.

I have been much acquainted with them ever since my boyish days. We have mowed close and burnt to kill them out of our meadows and low land.

If cranberry growers plant, sand and manure as they ought, they have nothing to fear but frost, and in most instances that can be obviated by flowing.

Yours, respectfully,

BEN. SHURTLEFF.

Boston, March 20, 1845.

Don't let your cattle fall off in flesh, at this season.

From the Boston Cultivator.

THE POTATOE DISEASE.

Messrs Editors:—As much has been published in the agricultural papers, and in many others, respecting blight and disease in the potato crop of 1844, and as I perceive by your valuable paper, that you in common with many other gentlemen, take considerable interest in this "Bread of Nations," I devote a few minutes to communicate my method of preventing it. In June 1843, I planted three quarters of an acre of potatoes, which did not ripen, the frost having killed the tops near the middle of September, a part of these I deposited in a hole in the ground, well secured from cold, to be reserved for seed the ensuing spring—a common practice with me.

I mention this circumstance merely because an erroneous idea prevails with some farmers, that potatoes thus deposited, will deteriorate, or in common parlance, *run out*. In May 1844, I planted, to ascertain if possible what I conjectured to be the case before, from experiments of a similar kind, two piece of potatoes three quarter acres each, one from ripe potatoes taken from my cellar, the other unripe from the place of deposit.

The first piece was nearly destroyed by blight, the vines being by the 20th of August all dead. I put two cords of manure, in the hills, taken from the stable. The crop was extremely small, and more than one third rotten or diseased. On the piece planted with unripe seed, the tops remained nearly as green on the 2d of October as at any time during the season, when they were killed with frost. No manure was used except gypsum; not one carious or diseased potato was to be found, and when cooked were dry and mealy. The potatoes were of various kinds, the Chenangoes and large oblong whites were the most numerous.

From the experience of last season, and previous ones, I am satisfied that unripe seed is better than ripe. But it may be owing to locality, manure, the salts, the soil contains, or something else which is the cause of blight; but unripe seed has always succeeded well with me. The last mentioned potato patch was planted on an old pasture which I am attempting to ameliorate, it being nearly covered with fern and brambles.

Its situation is elevated, retreating to the north, resting on a ledge of rocks of the trap formation, interspersed on the surface with granite, quartz, silex, and lapis lazuli, with an abundance of sulphate and carbonate of iron.

No actual admeasurement of the crop was made, but my neighbor, Mr L. Bartlett, who assisted me in harvesting, said they *turned out well*.

With respect, J. Noyes Rand.

Warner, N. H. Feb. 24, 1845.

THE POTATO CROP.

To the Editors of the Louisville Journal:

Gentlemen: I thank you for the New England Farmer," of the 29th ult., and for calling my attention to the three articles on potatoes contained in it. I have read them attentively and with much interest, and must say that they have confirmed me in the opinion, I have for many years entertained, that the disease so very much complained of of late years in potatoes, originates under the ground, either from a defect in the set, or from the attack of the grub-worm on the set, or on the tubers when forming, and the atmosphere has nothing to do with it. The letter of "J. H. D." to the editor, reviewing the discussion at the State-house, in Boston, on the subject, the particulars of which I should much like to see, fully proves this; as well as that, whatever the disease may be, it has been in many instances entirely prevented by the application of *lime*, ashes, plaster, and charcoal to the soil. In the last thirty years I have grown twenty-four crops of potatoes, varying in extent from over one hundred acres of a season down to six acres, every one of which was treated precisely in the same way as described in my last communication to you on this subject, (i. e. by the use of lime on the seed and land,) and in all of them I have been entirely successful in getting a good sound crop, free from disease, varying in quantity but little, and that variation caused by the vicissitudes of the seasons, against which we can have no preventive. Does not this fact, coupled with the evidence of those intelligent gentlemen of Boston, prove that lime, judiciously applied, (and I believe it cannot be better or more easily applied than by rolling the sets in it,) will secure a sound crop? I do not pretend to say that ashes, plaster or charcoal, may not be applied to the potato crop with a great deal of benefit: I am sure they can;—but I am now more convinced than before, that without the application of lime, you cannot be *certain* of a sound crop.

I cannot discover in all I have read, heard or seen myself, that the disease complained of is a *new* disease, or one that the potato, to my certain knowledge, has not been subject to for the last 30 years, under careless and injudicious management.

With much respect, your ob't serv't,

Feb. 8th, 1845. Grazier.

☞We are inclined to believe the writer of the above is unacquainted with the "potato disease," so called, which has proved so destructive to the crop in the eastern part of the country, within a few years past. Here, so far as we are aware, it is considered a *new* disease in the crop, and not attributable to "injudicious management."

☞Our venerable fellow-citizen, Col. Henry Purkitt, entered his ninetieth year on Monday last, (17th inst.) He is supposed to be the *only* survivor of the famous tea party, which destroyed the cargoes of tea in Boston harbor, previous to the Revolutionary struggle. The aged patriot enjoys remarkable health for one so advanced in years.—*Bost. Merc. Jour.*

Major Purkitt was *not* one of "the famous tea party." He was an apprentice to a cooper, who *was*, probably, one of the party. He has often related to us the proceedings of that eventful night, when the tea ships were broken open, and the tea thrown into the dock. His employer left the shop some time in the course of the afternoon, and gave peremptory orders to all his workmen and apprentices to keep at home, and not to go abroad that evening. Such was their strong conviction that some "deed of dreadful note" was about to be perpetrated, that the order was disobeyed, and young Purkitt was among the spectators, who were witnesses of the breaking open of the hatches, and saw the chests emptied of their contents into the dock. We have heard him say that the quantity of tea was so great, that people walked over it from one wharf to the other, before the tide set in.—*Boston Courier.*

Dogs on Farms.—A writer in the Farmer's Cabinet, after a full and fair review of the claims of dogs for usefulness to the farmer, comes to the conclusion that they are *worse than useless.*

DR. JACKSON'S REMARKS

At the Tenth Agricultural Meeting at the State House.

(Continued.)

Organic manures are essential to the growth of our cultivated crops. This the experience of ages has proved, and no reasoning on theoretical grounds will ever convince the farmer that he can grow a succession of crops without them.

The idea that vegetable growth is sustained entirely by the atmosphere, has been recently revived, but has met with no support among practical farmers and careful experimenters and observers.

When the chemist and physiologist have demonstrated that whatever is presented to the rootlets of plants in a soluble state, is taken up by the spongeoles, and enters into the circulation of the plant, and have detected the organic matters of the soil in their various changing states in the sap, it appears absurd to call in question a principle so well established. It has been proved by direct experiment, that fructification will not take place unless the plant is supplied with organic matters. All the mineral salts and gaseous elements may be presented to it, without avail. A green crop may be raised, but no seed will be formed. This has been the result of my experiments, and I believe would be the general result, if equal care had been used to exclude *all* organic substances from the soil.

If, then, decayed vegetable and animal matters are essential for cultivated crops, what is the best method of introducing them into the soil? The vegetable matters may be obtained either from green crops grown on the soil, animal manures being spread on the overturned sod, or they may be prepared in a mixed state in the farm-yard by composting together animal excrements, both liquid and solid, and vegetable matters of any kind. Peat and swamp muck are the most convenient bases for all composts. Marsh mud and peaty matter from salt marshes, will answer, though the latter is somewhat more difficult to decompose.

Swamp muck is always more soluble than peat, and is less fibrous and more easily decomposed; but it is generally more acid, and hence requires more basic or alkaline matter to neutralize it. It generally contains from 60 to 80 per cent. of vegetable matter, 16 or 20 per cent. of which is soluble in a solution of carbonate of ammonia. From 20 to 40 per cent. consists of earthy and metallic bases and salts.

Peat varies from 95 to 99 per cent. in vegetable matter, 10 or 15 per cent. of which is soluble in carbonate of ammonia. The mineral matters, from 1 to 5 per cent., consist of phosphate and sulphate of lime, with carbonate orginally crenate, apocrenate, and humate of lime, magnesia, iron, alumina, and manganese, with a little potash or soda.

Sulphate of iron and sulphate of alumina not unfrequently exist in peat in sufficient abundance to injure vegetation, if they are not decomposed previously by composting or mixing in lime, alkalies, or other bases, capable of uniting with the acid, so as to form a neutral salt, harmless in its nature.

Peat contains besides undecomposed fibre, the following acids, partly united with bases and partly free: Apocrenic acid, Humic acid, Crenic acid, Phosphoric acid, and sometimes Sulphuric acid, united with alumina and ox. of iron, forming an acid salt. Besides these acids, there is a neutral substance called extract of humus, which is very soluble in water, and humin, which is insoluble.

The bases most common in peat are—Alumina, lime, magnesia, manganese, oxide of iron, and a little potash. Phosphate of lime is present in every kind of peat and swamp muck that I have analyzed, and is one of the most valuable ingredients in their ashes.

Swamp muck contains the same ingredients in variable proportions, and may be used in the same manner as peat, in forming composts.

It is strange that writers on agricultural chemistry should have overlooked the importance of Apocrenic acid in the nutrition of plants. It is present in all soils, and is the principal soluble ingredient in peat and swamp muck.

While searching for the origin of nitrogen in plants, they seem to have overlooked the 15 per cent. of that element in this acid. It is much easier to conceive of the decomposition of this substance than of that of nitrates of potash and soda, or nitrate of lime, as some have supposed takes place in plants.

Crenic acid is also very abundant, especially in sub-soils, where it is generally found combined with lime, magnesia, or oxide of iron. It contains nearly 7 per cent. of nitrogen, and furnishes plants with that element. Its salts are generally the most soluble of any of the organic acid salts of the soil. Hence it is readily absorbed by the rootlets, and is found in the sap of trees and in the juices of Indian corn. Owing to the solubility of the crenates, they are most frequently found more abundant in the *sub*, than in the top soil,—hence one advantage in subsoil plowing. They also are found in pond, spring, and river waters.

Humic acid consists wholly of carbon, hydrogen and oxygen. Its elements are capable of assimilation by plants, and by its oxidation, it furnishes, like other vegetable matter, carbonic acid gas.

The humates of ammonia, potash and soda, are excessively soluble. Humate of lime is less soluble, but is sufficiently so for vegetation. Humate of alumina is nearly insoluble, and humate of iron is less soluble than the crenate of that base—especially the salt of the protoxide.

Extract of humus is a neutral extractive matter, and appears, from my researches, to be a compound of two different substances. It is evidently absorbed freely by plants, since the proportions of it in a soil after growing a crop, were found to be much diminished. It is also found in the sap of plants.

The above-mentioned organic acids I have found in soils from every part of the globe, and they may therefore be regarded as universal constituents of all fertile soils. They exist, also, in guano, in the proportion of nearly 32 per cent, one-eighth of which being readily soluble in water, is immediately available to plants, while much of the remainder is gradually decomposed, and is then rendered soluble in the ammoniacal products of the guano.

If a general name is required for the variable mixture of organic acids and their salts in soils, I should prefer the old term *Humus*, which has been restored by Berzelius, who repudiates the name he originally gave to it, of *Geine*—a name that seemed to signify a definite compound, and which is, therefore, inapplicable to a *variable mixture*.

Humus is valuable as a manure directly in proportion to the nitrogenous matters which it contains.

The organic acids when not combined with bases, seem to be injurious to plants, as are all free acids. It is necessary, then, to neutralize them by alkalies or alkaline earths.

Nature generally choses to combine the acids at first with bases, which form with them compounds very slightly soluble in water, in order to preserve them near the surface, where they may undergo changes by the influence of the air. Little by little they are oxidated, carbonic acid gas resulting, while the remaining acids acted upon by the alkalies slowly eliminated from the soil by the decomposing power of carbonic acid, dissolve the organic acids out from their earthy and insoluble compounds, and render them absorbable by plants, as they are needed.

Art adopts, in a measure, the processes of nature; but since tillage and larger crops require more manure to be rendered soluble annually, it becomes necessary to form a larger supply, directly in proportion to the wants of the crop to be raised.

In nature, the crops after growing, decay upon the ground, and restore to the soil what they have removed from it, with the addition of the carbon they have derived from the atmospheric carbonic acid, and the oxygen and hydrogen they have appropriated from the water—thus repaying the soil with interest added.

When we remove our cultivated crops from the soil, we fail to make compensation to it, and eventually exhaust its fertility. Hence it is necessary to know what we have removed, in order to restore those ingredients again, and we must, in order to profit by our operations, obtain the requisite materials at the cheapest rate.

Those crops which draw most largely from the air their supply of carbonic acid, may be cultivated as green crops, and after their roots are thickly matted, or the grass is bound out, the crop may be turned in. Thus, two or more crops of clover may be cut, and the residual vegetable matter left, will more than supply the loss the field has sustained by the crops taken off. It is only necessary then to restore the saline matters which have been removed, and if we harrow in on the inverted sod as much ashes as the crops removed contained, we are sure the field will have lost nothing. The farmer should do more than this, for *progress* should be his motto, and he ought to render his soil more and more fertile by cultivation.

It is impossible to remove the entire crop by mowing, and it has been found that where a sandy plain had been treated with 200 bushels of leached ashes to the acre, and alternate crops of millet and clover had been taken off, that the soil had gained 29 1-2 tons of vegetable matter per acre in 8 years. No organic manures had been used in this case, and the increase of vegetable matter came from the roots, stubble and sod left by the mown crops. The leached ashes supplied all the saline matters required, while the organic matter originally in the soil, sustained the crop until it was able to draw more nourishment from air and water.

It should be remembered that green crops when turned in, form vegetable acids, and these must be supplied with bases, either by the soil, or by spreading them on the land. They may be either plowed in, or harrowed in upon the inverted sod. If the manures are not volatile, the latter method is the best, and if the land is deeply plowed, it would be best in all cases to harrow the manure well into the overturned soil, for the soluble ingredients, which are most active, will work their way down fast enough.

Ammoniacal manures containing the phosphates, are the most valuable. Putrid urine is a manure of this class, but it is disagreeable to have it stand-

ing in tanks or in the barn-yard, and it is also troublesome to apply a liquid manure, a watering engine being required for the purpose, which few farmers have on hand. Urine, then, should be solidified before it is used, and should be deprived of all odor, for if it gives forth any smell, it is surely losing something, and that something is one of its most valuable ingredients, viz: ammonia.

In order to consolidate the valuable principles of urine, we must select a cheap and efficient method, and the one I have found to be the best, is to mix together 100 pounds of dry peat and 10 pounds of ground plaster of Paris, or sulphate of lime, and to pour the urine into this mixture until it is saturated. Or swamp muck and marsh mud mixed with a little ground gypsum, may be placed in the barn-cellar, where it will receive all the liquid manure of the stalls. Or still better, we may place the peat or muck in the barn cellar, and each day in cleaning the stalls, the floors may be sprinkled with ground plaster, which will be ultimately swept along with the manure into the peat below. Thus the stalls will be kept free from odor and the gaseous matters will be treasured up for the fields. It will be observed that when manures are mixed with peat and gypsum, they are quite inodorous, and the quality of the manure is much improved. I have found that half a barrel of the above mentioned mixture of peat and gypsum, would retain in an inodorous form, all the urine voided by four men in two years.

When this combination is mixed with a little hydrate of lime, it gives out an abundance of ammonia. On leaching some of it, and evaporating the watery solution, crystals of the sulphate of ammonia mixed with an extract consisting of the crenate, apocrenate and humate of ammonia were obtained.

When it is required to divide the ammonia in this very concentrated manure, with a large quantity of swamp muck or peat, it may be done by mixing it with recently slaked lime, and covering it quickly with the raw, moist peat, which will not allow a particle of ammonia to escape.

This mixture of the salts of urine and peat, contains also the phosphates of lime, magnesia, and ammonia, all of which are essential ingredients of corn and the small grains, as also of other plants.

The liquid manures from animals, are more valuable than their solid excrements, and we should endeavor to preserve them in the most convenient manner.

Where peat, swamp muck, or marsh mud cannot be obtained, sods, straw and soil, mixed with gypsum, will answer the purpose.

Guano, either natural or artificial, may be advantageously mixed with peat or swamp muck, which may serve not only to divide that highly concentrated manure, but will also retain its volatile ingredients.

The most common method of making a compost with peat or swamp muck, is to mix three loads of the peat or muck with one load of dung, and to allow the whole, after being heaped up, to undergo putrefactive changes. Then, previous to spreading it on the soil, a bushel of recently slaked lime should be mixed in with each load of compost, or one cask of lime to the above mentioned heap of four loads of mixture. It is essential that the lime should first be slaked until it falls into powder, for lumps of caustic lime become coated over with the compost, and will not slake in it. It is usual to mix in the lime in the spring, about 10 or 14 days before spreading the manure. Where gypsum is known to benefit the soil, it may be advantageously mixed into this compost when the lime is added. The Shakers at Canterbury, are in the habit of digging over their composts by means of a large plow, the compost being spread in a thick bed on the ground.

When night soil and peat are composted together, it is necessary to mix in lime, to order to decompose the mixture, which is then rendered inoffensive. The heap becomes warm, and gives out only the smell of ammonia, unaccompanied by any offensive stench. Ground plaster should be sprinkled over the heap, to retain that gas—or, if plaster cannot be procured, raw peat or muck will answer the purpose. A mixture of 100 parts of peat and 20 of ground gypsum, is the best disinfecting powder to throw into vaults. It is prepared in this city, at my suggestion, by Mr Kingsley, at the plaster mills in Butolph street. Lime is a very improper substance to throw into vaults, since it disengages ammonia in great abundance, and increases the disagreeableness of the place.

Some farmers use the raw manure of vaults on their soil. This should be discountenanced as a nuisance highly offensive to travellers in the neighboring highways. The night-soil ought always to be composted before it is used. If spread on grass lands, a portion of it adheres to the stems of the grasses, and is offensive even to cattle. It has no disagreeable properties after it is composted.

Fish are also spread on the soil, and give forth a most abominable odor. They ought always to be composted with peat or swamp muck, and with soil, if those substances cannot be obtained. A barrel of fish composted with a load of peat, will make it as valuable as a load of clear stable manure. If fish is properly composted, it may take the place of guano, and it may be worth while to try some experiments, to see how concentrated a manure may be made from them. It does not seem necessary that the fish should be first eaten by birds, for by chemical means they may be thoroughly decomposed, and all their products may be retained.

Guano is certainly one of the most concentrated manures, and operates very much like pigeon's dung, when mixed with the soil. When used too freely, or when it is brought in direct contact with the germinating seeds, it kills them, and causes a rapid decomposition of their substance. It is necessary then, to mix it with a large proportion of soil before spreading it, or to dissolve it in a large quantity of water, and disperse it by means of the watering engine. It operates best on the poorest soils, which need saline manures. It contains, as before remarked, the most important elements of plants, and of course supplies them when it is mixed with the soil.

[Concluded in our next.]

More Guano.—Since our last, there have been two arrivals of vessels from Ichaboe, with guano—one at New York, and one at this port. The captains confirm the previous report that the article was nearly exhausted, and that many vessels at the island would have to leave without cargoes.

Colman's Tour.—By way of Philadelphia, we obtain the following information:—"By a letter lately received from the publisher in Boston, we regret to learn that the third number has been somewhat delayed by the indisposition of our friend Colman. The manuscript is looked for by the steamer on the 20th inst."—*Far. Cabinet, Philad.*

AGRICULTURAL MEETING AT THE STATE HOUSE, March 18.

Hon. Levi Lincoln, in the chair. Subject, *Cultivation of English Grains.*

Mr Breck stated that the committee had not engaged any one to open the discussion, and he was not prepared to say much upon the subject, as he had but little practical experience in the cultivation of English grain, but would make a few remarks.

He thought the mode pursued by many farmers in raising rye, to be a bad one,—that much land from which successive crops of rye had been taken, was in a process of deterioration. This was a course he pursued many years since, on light soils, and the crop hardly paid for the labor of plowing, sowing, harvesting, &c. No manure was used, but grass seed was sown with the rye the last of August or first of September. The land was pastured the two following years, and then sowed down to rye again in the same way, The crop would rarely exceed 10 or 15 bushels per acre. He had known a crop of rye, where a heavy burden of clover was turned under before sowing, to exceed 42 bushels per acre: this was on land which had been previously manured.

In relation to wheat, he had never made but one experiment in raising it, and that sufficed. He had an acre of ground well prepared and sowed down to wheat—and the result was a crop of five bushels. We can do better in this part of the State than to attempt the cultivation of wheat on most soils.

He had some experience in raising barley. He sowed a field of a few acres, a few years since, which looked remarkably well the first part of the season, but just before the grain was in milk, it had the appearance of blasting. He had it cut immediately, and it made valuable fodder for milch cows.

Rev. Mr Sanger, of Dover, said he had cultivated rye, oats and barley to some extent. He had raised rye on sandy gravelly soil. He thought it important in sowing spring rye, to get in the seed as early as the first of April, or as soon as the state of the soil would admit. There came on a snow storm one year the first week in April, and he could not get his land ready to sow before about the 1st of May, and he did not get half a crop. He thought the earlier it was sowed the better.

In the cultivation of barley on a low clayey soil, he found it was inclined to blast, and when he found it in that state, he cut it for fodder. Oats, he thought, should be sowed very early, if grain was the object—but for fodder, 1st of June would answer.

Mr Fay, of Southboro', remarked that he had experience in raising small grains, and he would speak first of wheat. He had been led to the cultivation of this grain, by the encouragement held out by the State a few years since, in offering a bounty. He raised wheat and received the bounty three years, but it proved an unprofitable business to him, as his lands were not well adapted to its growth, and he had now given it up. He raised, one year, at the rate of 30 bushels to the acre, of the Black Sea wheat, but the two following years his crop did not average 10 bushels. He thought other grains could be cultivated to greater advantage to the farmer, so long as the West could supply us with flour at $5 per barrel. We could not compete with the West, in this article.

(Continued on next page.)

☞See that your plows, harrows, &c. are in good order and ready for use.

NEW ENGLAND FARMER,
AND HORTICULTURAL REGISTER.

Edited by Joseph Breck.

Boston, Wednesday, March 26, 1845.

AGRICULTURAL MEETING AT THE STATE HOUSE—Tuesday Evening, March 18.

[*Continued from the preceding page.*]

Mr Fay said rye succeeded in his vicinity very well. It was a practice to sow rye on new ground, after burning; plow, and sow in August, and a crop of 20 to 35 bushels to the acre is obtained. When rye is to be grown on old pasture ground, it was a good practice to plow early in the spring, then harrow it and break to pieces, and let it remain in this state till the last week in August; when plow and harrow it again, and sow grass seed with the rye. Twenty bushels to the acre was a common crop on such lands, and ten times more grass would be taken off the following year, than it produced before. He could give an example of the difference between early and late plowing. On a field of 5 acres, which he designed for rye, he commenced plowing in the early part of summer, but for some cause, did not finish plowing the field until just before sowing the rye in August. The result was, that where the land was plowed early, there was twice the quantity of rye.

In raising oats, it was important to sow early. It was his practice in sowing oats or barley, to seed down to grass at the same time; and although it was his general practice to sow grass seed with his spring grain, he never lost a crop of grass. The best variety is the Bedford oat, which never blasts. More of this kind of grain is raised in his neighborhood than any other.

He thought barley a good grain for stock, and was satisfied that a pound of it was equal to a pound of corn for fattening animals. Clover succeeds better when sowed among barley, than among other grain.

In seeding down grass land, it is his practice to sow a liberal quantity of seed, and is sure he gets more than compensated for it the first year. For one acre he uses 12 to 15 lbs. of clover, 12 to 16 quarts of herdsgrass, and 1 peck of redtop. He does not know that small grains exhaust the soil any more than Indian corn.

Mr Campbell, of Hampshire co., said, the earlier oats were sowed in spring, the better. He thought the crop much more exhausting than wheat.

Mr Stone inquired whether it was injurious to the rye crop to have it fed off in autumn.

Mr Fay replied that he considered it a very bad practice, and would not have a field of his fed off for any consideration.

Hon. Morrill Allen said he would make some explanation of what had fallen from him at the last meeting, as he perceived that one of the reporters had misrepresented him in one of the agricultural papers. What he said on that evening relative to the greater interest these meetings have from being conducted in a conversational or colloquial form, was an apology for the remarks he was about to read from a manuscript he held in his hand, and not intended as any reflection upon the learned address from the gentleman who had preceded him. He was very much gratified with the scientific lecture of last week, for though he was not a scientific man, he was highly in favor of science, as it was of the greatest importance in agricultural improvement. He thought farmers would be very much benefited by having their soils analyzed by an agricultural chemist. He would have our young farmers devote themselves more to the *science* of agriculture.

As to the cultivation of rye, he thought there was no better husbandry on light soils, than to sow rye and grass seed the last of Aug. or first week in Sept., the ground having been plowed the 1st of June, turning under all the vegetable matter. If this process was not repeated too often, he thought the soil would be improved rather than impoverished. The best crops are obtained in this way in Plymouth county, except when the land is new. On new land, rye grows very luxuriantly, and as decayed leaves and twigs are the principal manure, he infers that they constitute the best food for that plant that can be applied. Some sow rye among their corn at the last hoeing, and good crops are obtained. He thought oats very exhausting, and should not cultivate them, were it not for the convenience of having a few for his horse. Barley he had cultivated with some success, where the ground was well pulverized and manured; but he thought it was not profitable for him to raise.

In relation to wheat, he was of the same opinion of Mr Fay: it could not be raised to profit by the general mode of culture. He thought the reason why wheat could not be raised with success was, for a want of knowledge of the appropriate food with which to supply the plant. He thought rye a rank poison to fruit trees, and when grown among them, moss collects upon the trees, and they were anything but healthy. As grass seed sowed with spring grain generally failed in his section, he thought late summer or early fall sowing should be preferred.

Mr Buckminster said he did not know who Mr A. alluded to when he spoke of the reporter, but if he referred to him, he would remark that it was a very difficult task to report word for word. He said he was always pleased with the remarks of the Hon. gentleman on agriculture,—that no person in the State stood before him in his estimation, as a practical agriculturist, and that he had ever been anxious to report him correctly. He wished to obtain Mr Allen's notes, and applied to him for them, but they were in other hands.

Mr Allen said, the reporter represented him as opposing scientific agriculture, which was not a fact, for he highly approved of it.

Rev. Mr Richardson, of Hingham, remarked that he took a deep interest in agriculture, and would state a few facts. He had been an observer of the cultivation of rye for a long time. He recollected that formerly, old pine plain lands produced very small crops—now, these same lands produced large crops, and he thought their productiveness was occasioned by using salt manure, and plowing in Menhaden fish. With salt in the compost, he thought large crops of rye could be raised in any part of the State. He spoke of being on Long Island a few years since, and observed large crops of wheat and clover, on very light sandy soils. Upon inquiry, he found the lands were manured with leached ashes, which the farmers collected from the shores of New England, and considered it the best manure for their land, that could be applied. He thought much of salt as a manure for rye.

Mr Arnold, of New Bedford, said in regard to fish, it was a very powerful manure—that its virtue consisted in the great quantity of oil which they contain, and not the salt. He had found salt inoperative near the salt water. Fish manure is very forcing: great crops were produced by it, but unless followed up every year, the crops would fall off, and sorrel would appear and get possession of the ground. Fish could only be applied to advantage on the seaboard: they would not pay for carting 15 miles. His main object had been to get a grass rather than a grain crop. He thought oats a bad crop to seed down with, as the leaf is large, and shades the ground. He had been successful in sowing grass seed late in November, cutting, the next year, 1 1-2 ton of hay, and the next year, 2 tons to the acre, without dressing.

Mr Jenks, Dr. J. V. C. Smith, and other gentlemen made interesting remarks, which for want of room, we are obliged to omit.

Mr Allen moved that when we do adjourn, we adjourn to the first Tuesday following the first Wednesday in January, 1846—which was passed. He then made some appropriate remarks on the able and courteous manner in which the President had discharged his duties, and moved a vote of thanks, which passed unanimously.

The President replied in a brief and happy manner, remarking that he had found the meetings both pleasant and profitable.

Mr Buckminster moved a vote of thanks to the Vice Presidents and the Committee of Arrangements, for their labors and attention in furthering the designs of the Society, which was passed.

The Hon. Morrill Allen moved that the meeting be now adjourned to the Tuesday following the first Wednesday in Jan. 1846, and it was adjourned accordingly.

MASS. HORTICULTURAL SOCIETY.

EXHIBITION OF FRUIT.

Saturday, March 22, 1845.

Samuel Downer, Esq., of Dorchester, presented some very choice specimens of Apples, viz: Nonsuch (fine,) Newton Pippin, Old Hervey, R. I. Greening, and Golden Russet—all in fine order.

Capt. Lovett, of Beverly, exhibited very fine specimens of the Minister and Phenice Apples—both of excellent quality.

For the Committee,
S. WALKER, *Chm'n.*

EXHIBITION OF FLOWERS.

From Hovey & Co., Roses—Bougere (Tea,) Roi de cramoises (Bengal,) Pharoon (Tea,) Caroline (Tea,) Hardy (Tea,) Bouquet of Flora (Bourbon,) Mrs Bosanquet (Bourbon,) Nid d' Amour (Tea,) Eugene Beauharnois (Bengal,) Farfait (Tea,) and others.

From Wm. E. Carter, a plant of Cypripedinm insigne, very curious; Azalea Smithii, a pot of double yellow Primula, and a fine cluster of the flowers of Rhododendron arboreum.

JOS. BRECK, *Chm'n.*

NOTICE.—In consequence of the severity of the weather, the exhibition of Azaleas was postponed to Saturday, 29th inst.

JOS. BRECK, *Chm'n Flower Com.*

J. S. Skinner, Esq.—We hope there is no foundation for the rumor that this old and devoted friend of the Plow is to be removed from his office under the government, as he certainly would *not* be, if the voice of the agricultural press could prevent it. Doubtless there are many seekers or applicants for his place, but not one of them, we are assured, is more worthy of it, or better qualified for it, than the present incumbent. We do not know that aught we might say would have a particle of influence with the removing power, but we should regret to see this old and able advocate of the agricultural interests removed from his office, without any just reason existing for that removal.

☞ We have received the Constitution and By-Laws of the "American Agricultural Association," recently formed in New York city. D. J. Browne, Esq is the Corresponding Secretary.

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietors of the New England Farmer, Brighton, Mass. in a shaded Northerly exposure, to the week ending March 23.

March, 1845.	7 A.M.	12, M.	5, P.M.	Wind.
Monday, 17	26	40	33	W.
Tuesday, 18	26	40	33	N. W.
Wednesday, 19	22	29	28	N. W.
Thursday, 20	19	33	35	N. W.
Friday, 21	29	26	24	N. W.
Saturday, 22	17	36	37	N. W.
Sunday, 23	27	53	47	S.

BRIGHTON MARKET.—Monday, March 24, 1845.

Reported for the N. E. Farmer.

At market 840 Beef Cattle, 60 pairs Working Oxen, 1200 Sheep and 1960 Swine. About 100 Beef Cattle and 60 Working Oxen remain unsold.

Prices — *Beef Cattle.*—Last week's prices were not generally sustained by about 25c. per hundred, some extraordinary fine Cattle were at market, and a yoke or two brought as high as any last week. We quote Extra $5,50 a 5,75. First quality $5,00 a 5,25. Second quality, $4,75 a 5. Third quality, $4,25 a 4,50.

Working Oxen.—We noticed sales $65, $68, $78, $85, $105 and $125.

Sheep.—Sales from $3 to 4,50.

Swine.—Lots to peddle 4 1-2 to 4 5-8 for sows; 5 1-2 to 5 5-8 for barrows. Large barrows 5 and 5 1-4. At retail, 5 1-2 and 6 1-2.

The Hereford *Cow* and *Heifer*, fed by Mr. Southam, and the Southdown and Bakewell Sheep, fed by Mr. McIntire, of Albany, attracted great attention, and were acknowledged as fat as any ever offered for sale at Brighton.

WHOLESALE PRICES CURRENT.

Corrected with great care, weekly.

SEEDS. Herds Grass, $1 62 a 1 75 per bushel. Red Top 40 to 45 cents. Clover—Northern, 8 to 8½c.—Southern, 6¾ a 7½c. Flax Seed. $1 50 per bushel. Lucerne. 33 c. per lb. Canary Seed, $1 50 a 1 75 per bushel. Millet, 1 75 to 2 00.

GRAIN. The arrivals of Corn falling short of the demand, a further advance in prices has been realized.

Corn—Northern, new, bushel 00 00—Southern, round yellow, 00 a 00—Southern flat yellow, 52 a 54—do. do. white 48 a 50—do New Orleans, 00 a 00—Barley 00 a 00—Rye, Northern, 73 a 75—do. Southern, 70 a 73—Oats, Southern, 31 a 32 — Northern do. 35 to 36—Beans, per bushel 1 12 a 1 62.—Shorts, per double bush. 32 a 33—Bran, 22 a 23.

FLOUR. The market has been more active, with a brisk demand for foreign shipment and for eastern markets.

Baltimore, Howard Street, 4 mos. cr. new, $4 67 a 4 75—do. wharf, $4 62 a 5 67—do. free of garlic, $0 00 a 0 00—Philadelphia do. 4 mos. $4 62 a 0 00 — Fredericksburg, low Pd new $0 00 a 4 65—Alexandria, wharf, 4 62 a 0 00—Georgetown, $4 75 a 4 87—Extra do. 5 25 a 5 75—Richmond Canal, $4 62 a 4 75—do. City, $6 00 a 0 00—Petersburgh, City, $5 00 a 5 50—do. Country $4 62 a 4 67—Genesee, common, cash, $5 00 a 0 00— do fancy brands $5 12 a 5 25—Ohio via Canal, $0 00 a 0 00—do do New Orleans, cash $4 62 a 4 87. Rye, $3 50 a 3 62—Indian Meal in bbls. $2 50 a 2 62.

PROVISIONS. The market for several days past has exhibited an unusual degree of animation. Large operations in Pork have been made by dealers, and a good deal has been done on speculation.

Beef—Mess 4 new bbl. $8 50 a 9 00—Navy—$7 50 a 8 00.—No. 1, $6 75 a 7 00—do Prime $5 75 a 6 00—Pork—Extra clear 4 mo. bbl. $15 00 a 16 00—do Clear $14 00 a 15 00 do. Mess, $13 00 a 13 50—do Prime $10 50 a 11 00—do Mess from other States.— a — —do Prime do do $0 00 a 0 00 do. Cargo do. 0 00 a 0 00 —Clear do do $00 00 a 00 00—Butter, shipping, 12 a 15—do store, uninspected, 11 a 12—do dairy, 15 cts. a 17—Lard, No. 1, Boston ins. 7½ a 8—do South and Western, 7½ a 8— Hams, Boston, 00 a 9 — Southern and Western, 8½ a 9—Cheese, Ship'g and 4 meal, 5 a 7—do new milk, 7½ a 8.

WOOL. Duty. The value whereof at the place of exportation shall not exceed 7 cts. per pound, 5 per cent. ad val. All whereof the value exceeds 7 cts. per pound, 40 per ct. ad. val. and 3 cts per pound.

Prime or Saxony Fleeces, washed, lb. 45 a 48 c.—American full blood do 40 a 42—Do 3-4 do 37 a 38—Do. 1-2 do 35 a 36 -1-4 and common do 32 a 35 — Smyrna Sheep, washed, 20 a 22—Do. unwashed, 10 a 15—Bengasi do 6 a 12—Saxony, clean, 00—Buenos Ayres unpicked, 7 a 10—do. do. picked, 10 a 14—Superfine Northern pulled lamb 38 a 40—No. 1 do. do. do. 33 a 35—No. 2 do do do 23 a 30—No. 3 do do do 14 a 18.

For the last few weeks the article has been in very limited demand, yet the principal holders have been very firm in prices, on account of the small stock for this season of the year.

HOPS. Duty 20 per cent.

1st sort Mass. 1843, lb. 13 a 14 ; 2d do 0 a 0.

HAY, 16 to 18 per ton—Eastern Screwed $12 to 13.

EGGS. 15 to 20.

MARTIN'S MASSACHUSETTS PREMIUM EAGLE PLOWS.

The subscribers has for sale at their extensive Agricultural Warehouse, No. 51 & 52 N. Market street, *MARTIN'S MASSACHUSETTS PREMIUM IMPROVED EAGLE PLOWS.*

Mr. Martin's Plows combine new and important improvements adapting them to the different qualities of soil and the various modes and systems of culture His Eagle Plows, as improved, are much longer, the mouldboard, landside and point, or share, all extended without any addition to the width or heel in its work ; thus adapting this Plow to the more perfect turning under of the greensward, and inverting of the furrow-slice, so desirable in greensward plowing. The principle of these Plows is such, from where the furrow-slice is received upon the mouldboard to where it leaves it, that it enables the Plow to take up the furrow-slice with the greatest possible ease, bearing equally and lightly over the whole surface of the mouldboard, turning it over with the least possible bending or twisting, and preserving it flat, smooth and unbroken, laying the furrow-slices closely and compactly side by side, and creating but slight friction upon the face of the mouldboard in passing through the soil. Thus the Plow requires but very little power of draft beyond what is necessary to cut out the furrow-slice.

In testing the quality of Plows, the power by which it is moved, the ease with which it is handled, and the manner in which it completes the work, are three important points, all of which are wisely, accurately and judiciously preserved in these improved Plows.

The character of these Plows for ease of draft and management, and the excellence of their work, though well established in the minds of the farming community, were most fully and satisfactorily exhibited to the public at the grand trial of Plows by the Massachusetts Agricultural Society, at Worcester, October 9th, 1844, whose able and impartial committee awarded the highest premium of $50 to B. Martin, for the best Plow, for doing the best work with the least draft, in a trial open to the whole Union—this Plow running in its natural course, and keeping its true position, without any effort of the plowman, and turning a furrow 12 inches wide and 6 inches deep, with a much less draft than any other Plow on the ground.

These Plows, as improved, are considered to be nearest to perfection of any implements of the kind in this country, as well in respect to material and workmanship, as in form of construction.

At the late Cattle-Show and Plowing-Match of the Worcester County Agricultural Society, in the heart of that most valuable agricultural county, B. Martin's Plow received the highest and most enthusiastic commendation from intelligent and experienced practical farmers, who know and are the most competent judges.

His castings are of a superior kind, the workmanship not inferior to any other Plows in this country, and his timber being the very best of white oak ; and every farmer knows that good timber in his Plows is of the utmost importance—all of which in fact renders B. Martin's Plow the very article every farmer wants. The high character of these Plows is abundantly sustained by a continued and extended patronage, which the manufacturer hopes by his efforts and exertions to retain Being himself an experienced Plow-Maker, he will not spare any exertions in order to render his Plows a superior article.

Gentlemen are requested to call and examine these Plows before they purchase. JOSEPH BRECK & CO.

Boston, March 24.

NEW AND IMPROVED POUDRETTE.

Made by the Lodi Manufacturing Company, may be had at the office of the Company, No. 43 Liberty street, New York, or at their factory on the Hackensack river, in New Jersey, or by letter, post paid addressed "To the President of the Lodi Manufacturing Company, New York," or from the several agents of the Company in the country who advertise it for sale, or an order sent by any captain of a vessel can obtain it.

Terms cash on delivery—For one barrel, $2 ; two barrels, $3 50; three barrels, $5 ; four barrels and up to six, at $1 67 each ; seven barrels at $1 50 is $10 50; and at the rate of $1 50 per barrel for any greater quantity, free of cartage and other expenses.

The subscribers are appointed agents for selling Poudrette and all orders directed to them will be faithfully attended to.

Boston, March 26 JOSEPH BRECK & CO.

New Flower Seeds.

The subscribers have received by the steamer Cambria an additional supply of choice Flower Seeds, containing many new and rare varieties, enumerated in our Catalogue for 1845, which our customers and friends are invited to examine.

They may be had on application at the Seed Store, Nos. 51 & 52 North Market st. JOSEPH BRECK & CO.

Guano! Guano!

Just received and for sale in lots to suit purchasers, 20 tons African and South American Guano, of superior quality, the best ever brought into this market. The African, which is part of the cargo of the brig Samos was analyzed by one of the first chemists of this country, and pronounced to be of the first quality ; it has been fairly tested by many of the farmers and gardeners in the vicinity of Boston, and has fully equalled their highest expectations. We can fully recommend the South American, which has also been carefully analyzed, and found to be a splendid article, and very superior, being free from stones and hard substances. For sale by the ton, bbl. or bag. Orders addressed to JOSEPH BRECK & CO., 51 and 52 North Market street, will be promptly attended to.

Boston, March 25, 1845.

NURSERY.

H. Vandine informs the public, that he has for sale, a choice collection of Pear, Plum and Peach Trees, Gooseberries, Isabella and Catawba Grape Vines, from three to six years old, Shrubs, &c. &c.

Cambridgeport, Windsor street, 1 1-2 miles from Boston. March 18, 1845. 2m.

A Farm for sale.

Situated in Byfield Parish, Newbury, 4 1-4 miles from Newburyport, 1 1-4 miles from the meeting house, 1-4 mile from Dummer Academy, and 3 1-2 miles from the Rowley depot, and is on the Stage road from Newburyport to Georgetown, Andover and Lowell, containing 81 acres of Land, enclosed by a good stone wall, in good repair.

The Buildings consist of a good Dwelling House, 2 stories high, containing 5 lower rooms, 8 chambers, a milk room, a brick milk cellar, with a good cellar under the whole house. Also, a Wood House and Grain Chamber attached to the house. It has 2 good Barns in good repair, a Chaise and Wagon House, and Work Shop, with a Store Chamber over the same.

There is on the Farm a great variety of Apple Trees, consisting of Baldwins, Russets, Greenings, Gardner Sweetings, &c. &c., from which was gathered over 250 bbls. the last season. Half an acre is enclosed for a Garden, containing a choice collection of Peach, Pear and Plum Trees, Red and White Currants, Grape Vines, Strawberry and Quince Bushes.

☞ Water is conducted into the house by a pipe, from a never-failing spring of soft water, precluding the necessity of a cistern.

Also, a large Ox Wagon and Cart, both of which have Iron axletrees, and every kind of Farming Utensils, together with the Stock of said Farm. For further particulars inquire on the premises of EBENEZER STEDMAN.

March 18, 1845.

Farm for sale.

A small Farm in Framingham Village, consisting of from 6 to 10 acres of land, as may be desired ; with a good two story Dwelling House, Out Buildings, Barn, &c., and is stocked with a great variety of the choicest kind of Apple, Pear, Plum, Peach, Quince and Cherry Trees, most of them in bearing. Also, Strawberries, Raspberries, Currants, Grape Vines, &c.

The location is one of the pleasantest and most desirable in the Village. If desired the premises would be exchanged for real estate in Boston.

For terms &c., apply to Charles D. Meriam, on the premises, Eliphalet Wheeler, Framingham, or Francis Jackson, 27 State street, Boston.

March 12, 1845.

SPLENDID ROSES.

Joseph Breck & Co., have for sale strong Plants of the new and beautiful Perpetual Rose, La Reine, and Cloth of Gold Noisette, at 84 each ; Solfatain, $2; New Village Maid, beautiful stripe, $1 ; Madame Hardy, elegant white damask, $1,—with a great variety of other new and rare Roses. JOSEPH BRECK & CO.

Boston, March 26, 1845.

SITUATION WANTED.

A young man who has a practical knowledge of Gardening, in all its branches, and who has filled the situation of foreman in one of the best places in New England, for the past two years, wishes a situation in a public or private establishment. Can furnish good reference. A line addressed to J. S., and left at the N. E. Farmer Office will receive attention.

March 25.

MISCELLANEOUS.

COMMONWEALTH OF MASSACHUSETTS.

By His Excellency

GEORGE N. BRIGGS,

Governor of the Commonwealth of Massachusetts.

A PROCLAMATION

For a Day of Public Fasting, Humiliation, and Prayer.

A sense of dependence leads man to approach the Supreme Being in prayer, and to implore His protecting power. A consciousness of sin and demerit prostrates him in penitence before his Maker, in the hope of deprecating his displeasure.

Communities of men are dependent on God for His blessings. There are public errors and sins which are calculated to awaken the displeasure of the Almighty. To avert that displeasure, and to move His goodness, it becomes them, at stated seasons and on proper occasions, to humble themselves before Him, in fasting and prayer.

In temporal and spiritual mercies, the people of this Commonwealth have been highly blessed of Heaven, from the day the pilgrims kneeled upon Plymouth Rock, to the present time. In the enjoyment of all these mercies, they have, in a thousand ways, failed to obey the righteous commands of their Creator and Benefactor, and by their transgressions, rendered themselves obnoxious to His violated laws.

Having offended against him, let them publicly acknowledge His bountiful dealings with them, confess their delinquencies and ingratitude, and invoke His pardoning mercy, "through our Lord and Saviour Jesus Christ."

To this end, I do, with the advice and consent of the Council, appoint THURSDAY, THE THIRD DAY OF APRIL NEXT, to be observed as a day of Fasting, Humiliation and Prayer, by the people of this Commonwealth. And I do earnestly recommend to all classes, on that day, to dispense with all unnecessary business, assemble in their places of public worship, and render to the Supreme Ruler and Judge of Heaven and Earth, the sacrifice of humble and contrite hearts.

Whilst with gratitude they acknowledge His past goodness, let them bow before Him, and entreat Him to continue His favors to them:

To prosper them in all their varied and lawful pursuits:

To reward the efforts of the farmer, the manufacturer, the mechanic, and the laborer:

To extend His protecting hand to all "those who go down to the sea in ships":

To look in kindness on the widow, the fatherless, the poor and the stranger:

To remove the burden from the oppressed, and dispose all our people "to do justly, love mercy, and walk humbly before God":

To bless all our private and public institutions designed to ameliorate the condition of man, and to improve and elevate his character:

To preserve in the bonds of peace, justice, and integrity, the members of our common government:

Above all, to endow with wisdom and give efficiency to the means in operation to build up the kingdom and disseminate the Gospel of His Son, and hasten the time when its heavenly principles shall fill the hearts and be manifest in the lives of the children of men, over the whole earth.

Given at the Council Chamber, in Boston, this 10th day of March, in the year of our Lord one thousand eight hundred and fortyfive, and of the Independence of the United States the sixtyninth.

GEORGE N. BRIGGS.

By His Excellency the Governor, with the advice and consent of the Council.

JOHN G. PALFREY, *Secretary.*

God Save the Commonwealth of Massachusetts.

CAMBRIDGEPORT NURSERY.

COLUMBIA STREET.

SAMUEL POND, *Nurseryman, Cambridgeport Mass.*, has for sale a choice assortment of FRUIT TREES, SHRUBS, ROOTS AND VINES. Among them are the best varieties of Apple, Pear, Plum, Cherry, Peach, Apricot, Grapevines, Asparagus, Rhubarb, Currants, Gooseberries, Raspberries, Pear Stocks, Apple Stocks, Plum do., Cherry do. &c. Also 500 Pears and Plums of extraordinary size, many of them have borne fruit.

Trees of an extraordinary size always on hand, and will be delivered to any part of the city FREE OF EXPENSE.

Orders left at the Nursery, will be promptly attended to, and carefully packed to go with safety to any part of the country.

March 11, 1845.

FOR SALE.

The subscriber offers for sale a two story House, Barn, and all other necessary out buildings in thorough repair, together with twenty acres or more of excellent Land, suitably divided into Mowing, Tillage and Pasture, on which there are a great variety of choice Fruit Trees, &c., situated in the south part of Pepperell, on the county road leading from Boston to Keene,—and within thirty minutes ride from the contemplated Rail Road from Worcester to Nashua. Any person wishing to purchase a delightful country residence, will do well to examine the premises. Terms will be liberal and payment made easy. For further particulars reference is made to Mr. Joseph Breck.

F. A. WALTON.

Pepperell, March 5, 1845.

COLLEGIATE AND AGRICULTURAL SCHOOL.

The subscriber, having had occasion to observe from his own experience in teaching, that too little attention is generally paid to the physical education of youth, while their minds are employed in study, and also in view of the demand there is for an Agricultural School, proposes to establish a BOARDING SCHOOL FOR LADS. IN WESTBORO', Mass., to commence on the FOURTH WEDNESDAY OF APRIL NEXT, with a course of instruction designed to secure equal attention to the physical, social, mental and moral discipline of his pupils. The tilling of the earth will, therefore, form a part of the course of instruction, and a distinctive feature of the school, as tending of itself, more than any thing else, not only to secure to the pupils a vigorous constitution, but also—especially by the cultivation of Fruits and Flowers—to soften their manners, to refine their taste, to invigorate their minds, and to render them more susceptible of moral impressions.

It is not designed to make this a manual-labor school, as this term is generally understood; nor is it intended that the rural labor which will be required from all the pupils, shall have reference directly to a preparation for agricultural pursuits. The pupils will be prepared for college or for agricultural or commercial pursuits, according as parents may desire. For those pupils whose destination in life may be the pursuit of Agriculture, a thorough course of instruction will be adopted in BOTANY, MINERALOGY, GEOLOGY and AGRICULTURAL CHEMISTRY; and these sciences will be illustrated by experiments with a chemical and philosophical apparatus, with which the school is provided.

The regulations for government and discipline will be strict, and yet such as would be adopted in every well regulated family. No pupil of vicious habits will be allowed to remain in the family.

The number of pupils will be limited to twentyfive. Expenses:—For Board, Room, Washing, Lights, Fuel, and Tuition in the Collegiate and Commercial department the annual charge will be $150; but for those who take the scientific course in the Agricultural department, and who have the benefit of lectures and experiments, the charge will be $200 per annum.

C. G. HAZELTINE, M. A. Principal.

Reference is made to the following gentlemen:—President HOPKINS, Williams College; Rev. DORUS CLARKE; Messrs JOSEPH BRECK, CHAS. G. GREENE, and GEORGE DENNY, Boston

Westboro', March 4, 1845.

HOWARD'S IMPROVED EASY DRAUGHT PLOUGH.

Great improvements have been made the past year in the form and workmanship of these Ploughs; the mould board has been so formed as to *lay the furrow completely over, turning in every particle of grass or stubble, and leaving the ground in the best possible manner.* The length of the mould board has been very much increased, so that the Plough works with the greatest ease, both with respect to the holding and the team. The Committee at the late trial of Ploughs at Worcester, say,

"Should our opinion be asked as to which of the Ploughs we should prefer for use on a farm, we might perhaps say to the inquirer, if your land is mostly light and easy to work, try Prouty & Mears, but if your *land is heavy, hard or rocky,* BEGIN WITH MR. HOWARD'S."

At the above mentioned trial the Howard Plough *did more work, with the same power of team, than any other plough exhibited.* No other turned more than twentyseven and one half inches, to the 112 lbs. draught, while the *Howard Plough turned twentynine and one half inches, to the same power of team!* All acknowledge that Howard's Ploughs are much the strongest and most substantially made.

There has been quite an improvement made on the shoe, or land side of this Plough, which can be renewed without having to furnish a new landside: this shoe likewise secures the mould board and landside together, and strengthens the Plough very much.

The price of the Ploughs is from $6 to $15. A Plough sufficient for breaking up with four cattle, will cost about $10 50, and with cutter $1, with wheel and cutter, $2 50 extra.

The above Ploughs are for sale, wholesale and retail, at the New England Agricultural Warehouse and Seed Store Nos. 51 & 52 North Market Street, by

JOSEPH BRECK & CO.

HOWARD'S PREMIUM SUBSOIL PLOWS.

The subsoil Plow is unquestionably the most important agricultural implement of modern invention. It is considered by the best informed practical farmers of Great Britain and our own country, as an indispensable article in the most profitable husbandry. Says that eminently skilful and intelligent agriculturist, Mr. Phinney, of Lexington: "such is the estimate in which I hold this important implement, that I should consider it a great piece of improvidence to put in a crop without first subsoiling the ground." The subsoil Plows manufactured by Mr. Howard, are of two sizes—the smaller obtained the highest premium offered by the State Agricultural Society at its late exhibition at Worcester. The committee to award the premium on Subsoil Plows, in their report say:—"The committee were pleased with the neatness and firmness of structure of these Plows—characteristics which have distinguished all the Plows of Mr. Howard that have come within their observation. *Utility* and not *show*, are their peculiar features. * * They were astonished to find with what ease and perfection the hard pan could be stirred, and broken to the depth and width of 8 or 9 inches, for such was the operation of the medium size Plows, with a power not exceeding that ordinarily required for moving a surface Plow at the same depth—and they found the Plow might be guided with less labor and fatigue than the surface Plow. * * They confidently recommend the subsoil Plow to the attention of the farmers of the Commonwealth."

The improvement in the length of the handles of Mr. Howard's Plows, suggested by the committee, has been made—and the undersigned are now prepared to furnish these invaluable implements wholesale and retail.

JOSEPH BRECK & CO.

N. E. Agricultural Warehouse and Seed Store, 51 & 52, North Market Street, Boston.

FRUIT AND ORNAMENTAL TREES.

JOSEPH BRECK & CO. have for sale a large assortment of choice Fruit and Ornamental Trees, which they offer to the public at reasonable rates; as they are agents for many of the best nurseries and gardens in the vicinity of the city, they can execute any order that they may be favored with. From their own nurseries they can furnish the best varieties of Apple, Pear, Cherry, Plum, Peach, Apricot, Nectarine, Grape, Gooseberry, Currant, &c. Also, Ornamental Plants of every description.

March 11, 1845.

NEW ENGLAND FARMER,

A WEEKLY PAPER.

Terms, $2 per year *in advance*, or $2 50 if not paid within sixty days.

N. B.—Postmasters are permitted by law to frank all subscriptions and remittances for newspapers, without expense to subscribers.

TUTTLE AND DENNETT, PRINTERS,

21 SCHOOL STREET.